# A Model for Total Participation and Higher-Order Thinking

We blended the groups heterogeneously, and all of the students that we didn't expect to see rise were some of the top thinkers, and they were contributing and participating in ways that we never would have known they could, had we not used Total Participation Techniques.

—Meghan Babcock, 6th grade teacher

Consider the effort your brain requires to respond to the following task: *Define human rights.* For most people this task requires that they simply dig into their mental files, find an adequate definition, and complete the task by articulating the definition. Adequately responding to this task does not require a deep analysis of the concept and what the concept entails. On Bloom's cognitive taxonomy, it would be considered a lower-order question.

Now consider the effort your brain would require to answer this question: *How has your perception of human rights been affected by your culture and your country's history?* To successfully answer this question, you have to dig quite a bit further. You have to locate cognitive files on what you know about human rights, your culture's perceptions of human rights, how people's perceptions of human rights have changed over time, how other cultures view human rights, and how your perceptions might have differed if you had been born in a different culture or before certain historic events in your own country. Answering the question requires analysis, making connections, drawing conclusions, and basing those conclusions on what you know about historic events and the resulting societal changes. On Bloom's cognitive taxonomy, this would be considered a higher-order question. It requires that you flex your cognitive muscle and make numerous cognitive connections between what you've learned and what you already know.

Creating classroom opportunities for developing higher-order thinking is essential for helping students become the critical thinkers, problem solvers, innovators, and change makers upon which every society thrives. In writing this book, we wanted to be careful to make sure that Total

*Source: From Total Participation Techniques (pp. 12–23), by P. Himmele and W. Himmele, 2011, Alexandria, VA: ASCD. Copyright 2011 by ASCD.*

Participation Techniques were not simply used as another way of getting one-word answers or answers that would be considered surface knowledge from students. With all of the TPTs, we need to aim for deeper learning, because a teacher can use an activity that ensures total participation but still perpetuate the lower-order thinking that might have been present in a traditional question-and-answer session. Except for the fact that all are answering, a teacher could implement TPTs ineffectively and only require that students regurgitate forgettable facts. (Bloom's cognitive taxonomy and lower- and higher-order thinking are further explained in the Appendix at the end of this book.)

## Ensuring Higher-Order Thinking

The use of higher-order thinking is what takes students beyond simple engagement. Instead it ensures that students are *cognitively* engaged. Students aren't just engaged and having fun; they are also thinking deeply. The need to emphasize higher-order thinking is why we felt compelled to include sections on "How to Ensure Higher-Order Thinking" for most of the techniques presented. Student interaction will only be as powerful as your prompts. So take the time to develop prompts and activities that require that students reflect and use analysis, synthesis, and evaluation. Be sure that you provide opportunities for students to explore the big picture in lessons and justify responses based on concepts learned.

Done well, TPTs can require that students make connections from the classroom content to real life. This process works best when teachers have thought through the big picture of their lessons and understand what is most important for students to walk away with. Your students will not remember everything you try to teach them, just the meaningful parts, so focus on deep meaning. In this way, relevance will be made transparent to your students. What is the big picture in your content objectives? How can you make it relevant? Through ensuring higher-order thinking, you engage children in thinking through the implications and the relevance of the content to their world. They are looking intently within the nuances of the conceptual understandings so as to be lost in connection making. Like the student quoted at the end of Chapter 1, whose problems seem to go away when she comes to class, we want children to get "lost" in the learning.

The TPT Cognitive Engagement Model (see Figure 2.1) is aimed at helping you visualize the relationship between total participation and higher-order thinking in your classroom. Evidence of

learning will occur when students are actively participating and developing higher-order thinking, as is the case when activities fit into Quadrant 4 in the model. Although all of the quadrants may reflect important aspects of your teaching, be sure to shift back to Quadrant 4 throughout your lesson to allow students to process and interact regarding the learning.

To help you get a feel for how this type of teaching might look in a real-life classroom, Figure 2.1 includes an analysis of a lesson taught by 5th grade teacher Courtney Cislo. In the figure, we analyze her teaching in terms of the quadrants to provide you with an example of how shifting between quadrants, with a predominance in Quadrant 4, can provide more cognitively engaging learning experiences for students.
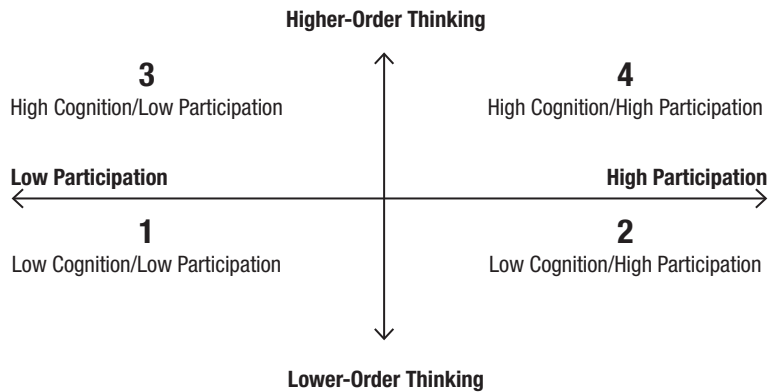
Teaching that gets stuck in Quadrant 1 (Low Cognition/Low Participation) is problematic for several reasons. What evidence is there that students are processing what was taught? Because the content is using lower-order thinking, how important is it and how long will it stick? Are students perceiving this content as relevant? What is going on in their passive minds as they sit there and listen to the teacher?

Teaching that lingers in Quadrant 2 (Low Cognition/High Participation) allows students to review and often apply what they have learned, but frequently what they have learned is easily forgotten because it is not linked to anything deep. Because it required high participation, it may have been fun; but because it required only lower-order thinking, it also was very forgettable.

Teaching that lingers in Quadrant 3 (High Cognition/Low Participation) may be an improvement from Quadrant 1, but for whom? Teaching that is predominantly represented in Quadrant 3 is selective in requiring evidence of higher-order thinking only from certain students. The article titled "The 'Receivement Gap'" (Chambers, 2009) addresses the inequity in access to quality educational opportunities. Chambers argues that the achievement gap is largely due to unequal access to quality learning experiences for students tracked into classrooms with fewer learning opportunities. We believe that a receivement gap also exists within classrooms when we operate predominantly in Quadrant 3. The students who always participate and have their hands up are the ones who benefit from the higher-order questions prepared by the teacher. If your lessons tend to linger in Quadrant 3, TPTs can ensure that all of your students are benefiting from the higher-order thinking that currently only a few are experiencing.

Figure 2.1
## TPT Cognitive Engagement Model and Quadrant Analysis

**Higher-Order Thinking**

**3**
High Cognition/Low Participation

**4**
High Cognition/High Participation

**Low Participation**

**High Participation**

**1**
Low Cognition/Low Participation

**2**
Low Cognition/High Participation

**Lower-Order Thinking**

| Quadrant | Sequence of Activities in Courtney Cislo's Lesson on Judgments |
|---|---|
| 1 | 2:00–2:08 Cislo read a chapter from *When You Reach Me,* by Rebecca Stead, which was the class read-aloud book for the week. Read-aloud time is a daily occurrence in Ms. Cislo's class. The actual language arts lesson began at the conclusion of the read-aloud. |
| 4 | 2:08–2:23 Cislo gave each student an individual graphic organizer with designated spots, so that students could record their judgments regarding six characters from *When You Reach Me.* Each student recorded judgments (along with an explanation) regarding each character. In a Chart-Paper Splash, students were then asked to transfer and record judgments onto each character's assigned piece of chart paper. |
| 4 | 2:23–2:27 Students circulated, analyzing peers' writings. They recorded similarities, differences, and surprises. |
| 2/3 | 2:27–2:29 Thumb Up/Down Vote: "Did everyone write the same thing?" Volunteers shared similarities, differences, and surprises. |
| 3 | 2:29–2:35 Content presentation on the concept of judgments: "You made a judgment. A judgment is an opinion based on facts and personal values and experiences. It's an informed opinion." Cislo introduced a flow chart, with three boxes and two different scenarios of personal experiences/values (facts + personal experiences = judgments). She explained that for each, the facts remained the same, but the personal experiences had affected the final judgments. |
| 4/3 | 2:35–2:38 Students pair-shared (What's the difference between a judgment and a fact?). Individuals shared with the whole group. Cislo gave each student six emotion cards (cards with pictures of faces, each with distinct emotional expressions). |

Figure 2.1 (*continued*)

## TPT Cognitive Engagement Model and Quadrant Analysis

| Quadrant | Sequence of Activities in Courtney Cislo's Lesson on Judgments |
|---|---|
| 3 | 2:38–2:40 Cislo read a moral dilemma (a story with a moral conflict). |
| 4 | 2:40–2:45 Cislo asked students to respond to the first moral dilemma by grabbing the card that best matched their emotions. "How do you feel about how the problem was solved? Be ready to explain why you feel this way." Students took out their Appointment Agendas, found their 2:00 appointment, and shared the emotion card they chose and the reason behind it. |
| 4 | 2:45–2:47 Cislo stopped the students and asked the pairs to go one step further by sharing with each other why they believed what they believed. "What personal values or experiences are affecting your judgment of this scenario?" |
| 3 | 2:47–2:50 All students were seated again. Cislo read a second moral dilemma. |
| 4 | 2:50–2:53 Cislo asked students to choose an emotion card and repeat the 2:40–2:45 process, this time with their 5:00 appointment. "This time discuss how you feel, why you feel that way, and your personal values or experiences that cause you to feel this way." She referred to the flow chart and to the directions written on the board as she spoke. |
| 3 | 2:53–2:55 Cislo read a third moral dilemma involving Miley Cyrus (the students demonstrated strong opinions about this topic). |
| 4 | 2:55–2:57 Students were asked to select an emotion card and share in pairs at their tables (due to time constraints). |
| 4 | 2:57–2:59 In a Quick-Write, students were asked to "define the word judgment and explain why your judgments were not the same as your classmates." |
| 4 | 2:59–3:01 Students were asked to pair-share their Quick-Writes at their tables. |
| 3 | 3:01–3:03 Volunteers were selected to share with class. |
| 3 | 3:03–3:04 Cislo summarized a final definition for judgments as she again referred to the flow-chart. Quick-Writes were collected. |
| Cislo's lesson provided a nice blend of content presentation and student responsibility. She continuously asked students to demonstrate, through the use of Total Participation Techniques, that they were actively processing the concepts using higher-order thinking. She circulated and commented on key words as students interacted. | |
| **Note:** The final Quick-Writes would make a great source of student-authored material that can be used on a One-Liner Wall (see Chapter 8) for revisiting the themes in the lesson. | |

It is very important that we structure our teaching so that every lesson includes several opportunities for all students to demonstrate active participation and cognitive engagement in what we are teaching. Activities in Quadrant 4 (High Cognition/High Participation) allow us to obtain evidence of this. Although there will be times when we want to make sure students comprehend basic understandings necessary to get them to higher-order thinking, our ultimate goal is that students be able to analyze, synthesize, and evaluate using what they know. This goal is what keeps us moving back to Quadrant 4 periodically throughout our lessons.

Consider using the quadrants in Figure 2.1 to analyze your planning. As you work with teams or literacy coaches, consider asking a peer to observe you. In which quadrants did you tend to linger? Could a question have been better posed through a TPT to ensure that all students benefited rather than just a select few?

We encourage you to use the TPT Cognitive Engagement Model to analyze your own planning, as well as to help you support your colleagues in their teaching. If you are an administrator, the model can also help you in supporting your teachers in their planning or as you analyze lessons that you observe.

## When Students Shine

It is probable that one of the greatest benefits of TPT-infused lessons focused on higher-order thinking is that the students whom you would not expect to shine will start shining right alongside the rest of their peers. Meghan Babcock noticed this in her TPT-infused unit:

> It's been neat to see, because the students in learning support [with mild disabilities] will usually wait for all of the other kids to talk. And through using TPTs, I can see what they're thinking, through their Quick-Writes and just knowing that they have a thought, through Thumbs-Up When Ready. [See TPTs in Chapter 4.]

Keely Potter and Meghan Babcock's reading class began as a mandatory class for the first few weeks of school. But because of a mix-up in scheduling, the two teachers made arrangements with several of the 6th grade teachers to take the students on a voluntary basis for the final week of the teaching unit. We expressed surprise that two-thirds of the students continued to come to the reading class, even though it had been made voluntary and the final school year wrap-ups

and celebrations were occurring at the same times in their homerooms. When the students were asked why they volunteered to come to the reading class, here's what a few of them wrote:

- "Because it's fun, and it really helps me think deeper."
- "I loved how you had to figure stuff out [in the book] without it being a mystery."
- "Because I wanted to keep reading and find out what happened. For me, that is something I don't do, but I did!"
- "I wanted to finish the book! And I really loved this class. It was so much fun, and it showed me how to connect and learn more about books."
- "I feel comfortable with this group. Also, I want to keep learning about how to dig deeper so I enjoy books more."

In the student surveys, students expressed a clear note of pride in realizing how they were developing in their own ability to "dig deeper." This "digging deeper" was facilitated through the use of TPTs that were created to specifically ensure higher-order thinking. Several students even surprised themselves, as was the case for the student who said, "That is something I don't do, but I did!" Another student wrote, "I never really liked to read, and I got really interested in this book." Let us just clarify: Kate DiCamillo's (2001) book *The Tiger Rising* is an emotionally deep book that explores the complex nature of the relationship between two troubled adolescents. We mention this because the students were not reading an action-packed thriller that starts fast and would have kept them on the edge of their seats. Instead, they were kept engaged through the active processing of the deeper meanings embedded throughout this rich piece of literature, through interactive prompts that engaged higher-order thinking.

## What Happens When You Ensure Higher-Order Thinking

The best thing about ensuring higher-order thinking is that students come up with things you would have never expected them to come up with. As noted in the opening quote for this chapter, students will surprise you because collectively their experiences are broader than yours, and broader than any one individual student's. Higher-order thinking thrives on interaction. When students bounce ideas off each other, the exchange generates more ideas in a nonthreatening setting. Each individual student's ideas start to grow, and the effect is like placing a microphone

in front of an amplifier. The thoughts go back and forth, growing in intensity. This effect was noticed by 6th grader Anna, who wrote, "By hearing others' ideas, it gave me some new ideas like, 'Wow, I didn't think of that.' And then I would add more to it." Not only will students surprise you, but also they will often even end up surprising themselves. The following quote from another 6th grader, Hannah, illustrates the point:

> I have noticed that I am symbolic in my art and can think deep into what I read because of this [reading] class. . . . Quick-Writes and Pair-Sharing helped me get deeper in the story and let me share what I have to say.

Ensuring higher-order thinking also builds academic confidence. Meghan Babcock offered this example:

> Two students just came and gave me a big hug and said that they couldn't wait for the next class because [reading time] made them feel really smart. They said that they felt like they were really thinking. By saying to me that it makes them feel smart, it's because they feel that they have the opportunity to share what they know. They've come so far, because before these students were really afraid to participate.

## How TPTs Were Used to Teach Abstract Thinking

One of the language arts standards that Potter and Babcock chose to focus on during their reading lessons was that of reading, analyzing, and interpreting symbolism, metaphors, and imagery in literature. *The Tiger Rising* (DiCamillo, 2001) provided an excellent literary resource for meeting this standard. Potter and Babcock implemented Total Participation Techniques in order to engage all students in the process of abstract thinking and meaning making. Here's how they did it.

They began by introducing the concept of symbolism and how authors use it to create feelings. They decided to focus on DiCamillo's use of three major elements: the use of color to create moods; the use of "not-words" to understand the way the main character suppressed emotions (for example, "not-thoughts," "non-song," and "not-crier"); and the use of the "suitcase" to

represent the character's denial—as in "He made all his feelings go inside the suitcase; he stuffed them in tight and then sat on the suitcase and locked it shut" (p. 3).

To understand the use of color, Potter and Babcock conducted a Chart-Paper Splash (see Chalkboard Splash in Chapter 4) using large pieces of colored butcher paper. Students silently circulated around the room, markers in hand, and wrote on the colored chart papers how each of the colors made them feel. For example, on the red chart paper students wrote these words, among others: *the path to anger*, *rage and madness*, *hot*, *terrified*, *evil*, *devil*, *upset*, *Armageddon*, *embarrassment*, *fire*, *angry*, *mean*, *love*. The yellow chart paper had words such as *bright*, *playful*, *sunny*, *cheerful*, *ready to run*, *the opposite of the saddest moments*, *life*, *happy*, *brightness*, *flip-flops*, *sun*, *brought up from darkness*. Potter noted the rich discussion that followed:

> Bram shared that deep blue is his favorite color, and that started a discussion of how deep blue reminded another of sadness. Students started talking about the deeper concepts that are affected by their own personal interpretation of colors. They brought up spiritual connections like good, evil, heaven, and hell, all in an attempt to try to figure out why the author chose the colors she chose.

Potter and Babcock also introduced a painting to expand on the theme of colors. They analyzed how the artist conveyed a mood and a message through his use of colors. Through the use of prompts, they introduced parallels between artists and authors (see Figure 2.2), noting how the former convey thoughts through pictorial images and the latter through mental imagery.

This is how students were introduced to the symbolism of colors within the text. Then whenever colors were mentioned in the book, students were asked to pause and record their thoughts regarding why the author might have used that color to describe the event. Sixth grader Sara noted, "I love that you can get inside a character's head and you can know that you have to work hard if you want to figure out what something means, instead of [the book] just giving it away." Bram shared his own growing understandings when he wrote, "I noticed that I am understanding the words (feel what the author says) better." And Ariel wrote, "The book is very deep and emotional. I feel that I am being put in Rob's shoes, because it is very detailed and it's very easy to picture his life." Another student said, "This is the first book I have ever really loved."

Students were asked to personalize the concepts of the not-words and the suitcase. As a result, symbolic interpretations started showing up in their writings. For example, Conrad reflected on the relationship between the two main characters in this way: "Sistine is like a mirror to him. He can talk to her like she's him." After being shown an image of Michelangelo's Sistine Chapel, students were asked to reflect on why the author might have chosen to use the Sistine

Figure 2.2
**Anna's Mood and Color Analysis**
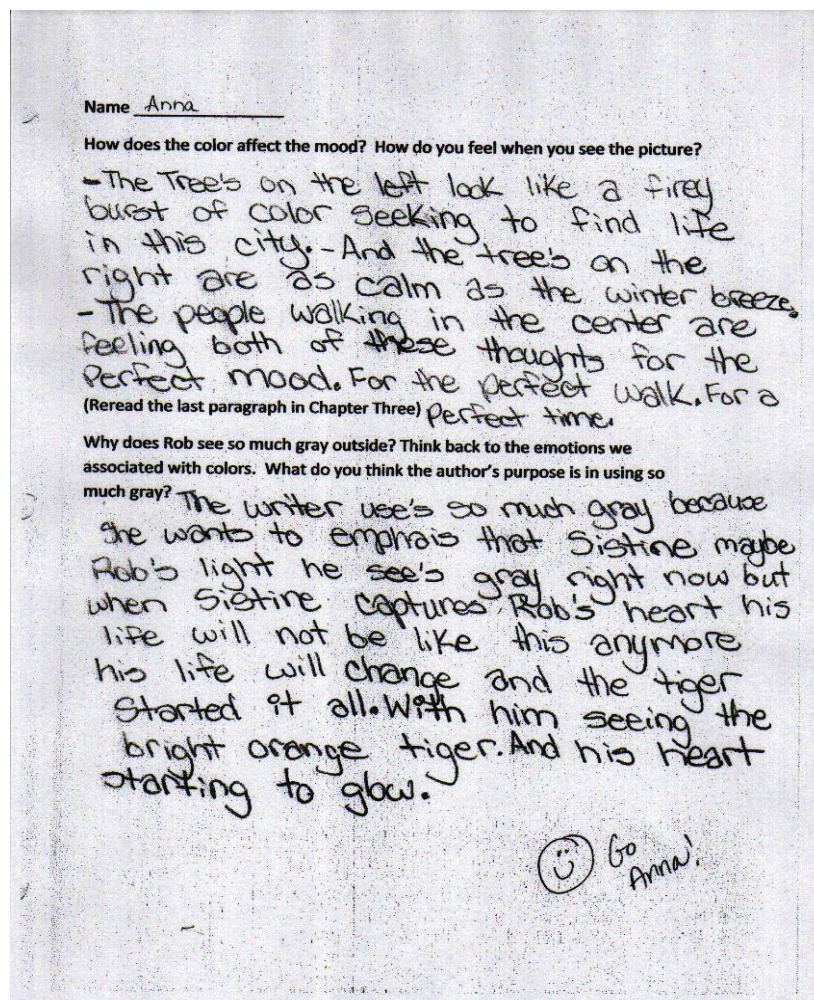


Chapel as imagery in her book. Ariel wrote, "It represents his life and feelings. When God and Adam are reaching out to one another, it reminds him of his mom reaching out to him."

Quick-Writes, Quick-Draws, Pair-Shares, Networking, Ranking, Cut-and-Pastes, Chalkboard Splashes, Graphic Organizers, Key-Word Dances, Thumbs-Up When Ready, and Bounce Cards were all used as ways for students to process and share their thoughts regarding the prompts (see Chapters 4 through 7 for descriptions of these TPTs). Babcock noted the following: "We did a TPT with each of the activities, and they carried these through. Because we did the TPTs together at the same time, we didn't have to review a whole lot, because you know you've all done the same thinking."

When asked about the importance of understanding the deeper purposes behind the specific items found within state standards, Potter explained it this way:

> Symbolism certainly can be taught as an isolated skill for the purposes of test-taking. But what's missing is the context, the experience, all the *connect-the-dot* points that allow students to go much deeper into symbolism and notice the language that is being used. "What does this word mean?" "How is the author using it?" It could be so easily enhanced with Total Participation Techniques. So many teachers take it to that point of skill mastery. But if a student is a masterful worksheet writer, but they get to the point that when they need to talk about symbolism and do something with it, they first need to look it up in the dictionary and write it down, then we've missed the point and purpose for why students need to know this. You can't just deliver this stuff. It has to be experienced.

Potter and Babcock guided students to experience the reading, analysis, and interpretation of symbolism, metaphors, and imagery through carefully structured TPT-infused lessons that provided students with opportunities for reflection and interaction. In Babcock's words, "Doing activities like this teaches kids how to think, not what to think."

When teachers carefully structure the delivery of their content so as to ensure active participation and cognitive engagement by every learner, they help ensure that the learning will be lasting and meaningful. And they ensure that not one student will be abandoned along the way. In Chapters 4 through 7, we introduce specific Total Participation Techniques. Most have suggestions on how to use them so as to ensure higher-order thinking in each learner. As you examine the techniques, think about how you might use, or adapt, each one of them within your content area.

## Reflection Questions

• What units will you be teaching over the next few weeks? How might you infuse your lessons with TPTs that help students think through the concepts using higher-order thinking and total participation?

• How might TPTs have helped you during your academic journey, either in your K–12 schooling or in your postsecondary education?